

REMARKS

This is in response to the Office Action that was mailed on March 30, 2004. Claim 1 is amended to more precisely define the present invention, based upon disclosure throughout the specification, e.g., from line 32 on page 2 through line 34 on page 6. Particular attention in this regard is directed to lines 1-5 on page 4 of the specification. New claim 20 describes the starting mother liquor in accordance with the background of the invention. New claim 21 is derived from original claim 11. New claim 22 is derived from original claim 18. Claims 13, 14, and 19 are cancelled, without prejudice. No new matter has been introduced. Claims 1-12, 15-18, and 20-22 are in the application.

Claims 1-19 were rejected under the second paragraph of 35 U.S.C. §112 as failing to define the invention properly. The phrase "characterized in that" has been removed from all of the claims. The phrase "such as" no longer appears in the claims. Claim 19 ("simultaneous manufacture") has been cancelled. Claim 14 (a "use" claim) has been cancelled. It is respectfully submitted that the claims remaining in the application, as amended herein, obviate all of the issues raised by the Examiner in connection with this rejection.

Claim 14 was rejected under 35 U.S.C. §101 as being a non-statutory "use" claim. This ground of rejection has been obviated by the cancellation of claim 14.

Claims 1, 2, 6, 9, 13-15, 17, and 19 were rejected under 35 U.S.C. §102 as being anticipated by Canadian Patent No. 939,876. The rejection is not believed to be applicable to the claims in their present form.

The starting material for the method of the present invention is now clearly specified to be a waste product - namely, the mother liquor of a urea phosphate process or the scrubber solution of an NPK process. The waste product is known in the prior art to have limited utility due to undesirable properties of the mother liquids. See the discussion on pages 1-2 of the present specification. The present invention, however, provides a way to utilize those waste products to make useful N-P fertilizer products. Thus the present invention has substantial industrial value, permitting recycling of the waste material into useful products. The method of the present invention is also economically attractive, due to the inexpensive nature of the starting materials and the simplified processing steps involved in the present method.

Canadian Patent No. 939,876 describes the use of crude wet-process phosphoric acid, which is obtained from the acid composition of phosphate rocks or other phosphate containing

material and contains impurities. In the process of that patent, the crude wet-process phosphoric acid is reacted in a solution with urea so that *the impurities precipitate from the liquid*. The precipitated impurities are separated to obtain highly pure ammonium phosphate. The high purity ammonium phosphate is recovered as a solution and used typically in liquid fertilizers. After the impurities are filtered, the pure filtrate may be concentrated to form highly pure solid product. Page 3, lines 12-20.

A significant difference between the method of the reference and the presently claimed method lies in the facts, first, that a different starting material is used and, second, that the precipitation step of the present invention is effected *in the presence of the impurities*. Due to the presence of the impurities in the present invention, the product obtained in the present invention differs significantly from the high purity product in Canadian Patent No. 939,876.

The reference neither teaches nor suggests the present method, wherein the specified "waste" mother liquors are used for precipitating a fertilizer product of ammonium phosphate and/or urea ammonium phosphate in an aqueous liquid in the presence of impurities. This is a clear difference in technology, which is not reflected in the prior art applied. Accordingly, withdrawal of the

rejection over the Canadian patent, and passage of this application to issue, is respectfully solicited.

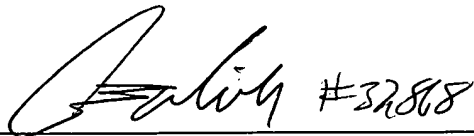
Should there be any outstanding matters that need to be resolved in the present application, the Examiner is respectfully requested to contact Rick Gallagher (Reg. No. 28,781) at the telephone number of the undersigned below, to conduct an interview in an effort to expedite prosecution in connection with the present application.


If necessary, the Commissioner is hereby authorized in this, concurrent, and future replies, to charge payment or credit any overpayment to Deposit Account No. 02-2448 for any additional fees required under 37 C.F.R. §§ 1.16 or 1.17; particularly, extension of time fees.

Respectfully submitted,

BIRCH, STEWART, KOLASCH & BIRCH, LLP

By

 #32868  
for Gerald M. Murphy, Jr., #28,977

  
GMM/RG/csm  
0696-0187P

P.O. Box 747  
Falls Church, VA 22040-0747  
(703) 205-8000